

REMARKS/ARGUMENTS

Favorable reconsideration of this application is requested in view of the above amendments and in light of the following remarks and discussion.

Claims 20-29 are pending in the application. Claims 20 and 21 have been Amended and new Claims 25-29 have been added. Support for the change to Claim 20 and for new Claims 25-29 is believed to be evident from at least original Claims 1-6. Claim 21 was rewritten in independent form to include old Claim 20 limitations and those of Claim 21. Therefore no new matter is added by the present amendment.

The outstanding Action presented objections to the title, Abstract, Claim 21, and the specification statement of divisional status. The outstanding Action also presented a rejection of Claim 20 under 35 U.S.C. §103(a) as being unpatentable over Krishnamurthy et al. (U.S. Patent No. 5,653,841, hereinafter Krishnamurthy) in view of Pumphrey (U.S. Patent No. 5,139,376) and Motosugi et al. (U.S. Patent No. 5,653,841, hereinafter Motosugi).

The outstanding objections to the title, Abstract, Claim 21, and the specification statement of divisional status are respectfully submitted to be overcome by the present Amendment. In this regard, the title, the Abstract, and the specification statement of divisional status have all been amended along the lines suggested in the outstanding Action.

In addition, the outstanding objection to Claim 21 as depending on canceled Claim 1 has been rendered moot in terms of the present change to Claim 21 to place this claim in independent form with the limitations from the previous version of Claim 20.

If the Examiner believes that further formal matters remain to be addressed, he is invited to contact the Applicants' representative at the below noted telephone number so that mutually agreeable changes can be determined.

Before considering the outstanding rejection, it is believed that a brief review of the present invention would be helpful. In this regard, the present invention is concerned with a method of manufacturing a magnetoresistance effect element that includes forming an insulating layer on a first ferromagnetic layer, forming an aperture reaching the first ferromagnetic layer by thrusting a needle from the top surface of the insulating layer, and depositing a ferromagnetic material to form a second ferromagnetic layer overlying the insulating layer which buries the aperture.

In a first aspect of the invention, the aperture has an opening width not larger than 20 nm.

In another aspect of the invention, a current flowing between the first ferromagnetic layer and the needle is monitored, and thrusting of the needle is interrupted when the current reaches a predetermined value.

It is respectfully submitted that none of Krishnamurthy, Pumphrey, and/or Motosugi, considered alone or together in any proper combination, teach or suggest providing the Claim 20 aperture having an opening width not larger than 20 nm.

It is further respectfully submitted that none of Krishnamurthy, Pumphrey, and/or Motosugi, considered alone or together in any proper combination, teach or suggest providing the Claim 21 required monitoring of the current flowing between the first ferromagnetic layer and the needle and interrupting the thrusting of the needle when the current reaches a predetermined value.

It is well established that a *prima facie* case of obviousness requires that all claim limitations be considered and demonstrated to be taught or suggested by the prior art, see MPEP §2143.03. Accordingly as none of the prior art references applied teaches or suggests

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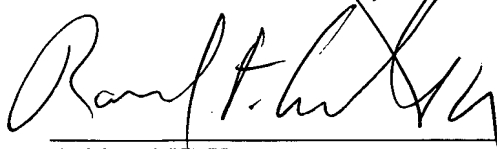
the Claim 20 aperture having has an opening width not larger than 20 nm or the Claim 21 required monitoring of the current flowing between the first ferromagnetic layer and the needle and interrupting the thrusting of the needle when the current reaches a predetermined value, withdrawal of the rejection is respectfully requested.

Moreover, as each of new Claims 25-29 depend from either independent Claim 20 or independent Claim 21, it is respectfully submitted that they define patentably over the applied prior art references for the same reasons that their respective parent independent claim does. In addition, each of these new dependent Claims 25-29 add further features not taught or suggested by Krishnamurthy, Pumphrey, and/or Motosugi, considered alone or together in any proper combination, and should be considered to be patentable over these references for this reason as well.

Consequently, for the reasons discussed in detail above, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance is earnestly solicited.

Respectfully Submitted,

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